REMARKS

Claims 1-24, 26-45, and 47-48 are pending. Claims 1, 20-23, 26, 27, and 36 are amended, herein for clarification. Claims 25 and 46 have been canceled. New claims 47 and 48 have been added. No new matter has been entered.

Claim Rejection under 35 U.S.C. § 112

Claim 25 was rejected under 35 U.S.C. §112 as being indefinite. Claim 25 has been canceled, thus this rejection is moot and should be removed.

Claim Rejections under 35 U.S.C. § 103

Claims 1-3, 5, 7-12, 13, 15, 17-25, 27-31, and 33 were rejected under § 103 as being unpatentable over Barton (US 2003/0157397) in view Yoshida (US 2003/0091891). Claims 14, 18, 19, 32, and 34 were rejected under § 103 as being unpatentable over Barton in view Yoshida and further in view of Cipollini (US 6,379,827). Claims 4 and 6 were rejected under § 103 as being unpatentable over Barton in view Yoshida and further in view of Larson (US 2003/0134178). These rejections are respectfully traversed.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP 2143. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Independent claims 1, 27, and 36 recite devices, which convert a hydrogenous fuel source to electrical energy, comprising, *inter alia*, a relative humidity of a humidified reactant output exceeding about 150% (claim 1), between (100 and 150% (claim 27), or below 100% (claim 36). None of the cited references teach or suggest the relative humidity of a humidified reactant output exiting the device. As a result, examiner has failed to establish a prima facie case of obviousness, and the rejections should be removed.

Alternatively, the examiner has failed to teach or suggest a controller configured such that the relative humidity of the humidified reactant product exceeds about 150% as claimed in claim 48. The examiner erred in stating that this "configured" limitation fails to define the controller structurally, because the limitation defines a particular capability or purpose that is served by the controller i.e. producing a humidified reactant with a relative humidity in the claimed ranges of claims 1, 27, and 36. Consequently, the controller must comprise structural attributes that enable the controller to produce these claimed relative humidity ranges. In contrast, Barton narrowly teaches a flow controller configured to regulate the flow of methanol. Barton does not teach that the controller comprises components that would enable the controller to control relative humidity inside the device. Consequently, Barton does not teach or suggest all structural elements of the claims, because Barton fails to teach a humidity controller, in addition to failing to teach the function of Barton.

Yoshida, and the additional cited references, Cipollini, and Larson, do not cure the above noted deficiencies of Barton, thus the rejections under § 103 should be removed. Accordingly, claim 1, 27 and 36 and all claims dependent thereon.

Conclusion

The Applicants respectfully submit that, in view of the above amendments, and remarks, the application is now in condition for allowance. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully requested.

Respectfully submitted,

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